



Houses have been built with wood for hundreds of years. Old growth trees make a good building material. However, a dwindling supply of old growth trees and environmental concerns have caused the quality to diminish. Today, it is clear that there is a need for a new building material. Despite the myths that still surround the use of light gauge steel framing, it has come to the forefront as the best and most feasible alternative building material for residential and light commercial construction.

### Steel is a Superior Construction Material

- ◆ Highest strength-to-weight ratio of any building material
- ◆ 100% recyclable
- ◆ Non-combustible - does not burn and will not contribute fuel to the spread of a fire
- ◆ Inorganic - will not rot, warp, split, crack or creep
- ◆ Dimensionally stable - does not expand or contract with moisture content
- ◆ Consistent material quality - produced in strict accordance with national standards, no regional variations

### Benefits to the Consumer

- ◆ High strength results in safer structures, less maintenance and slower aging of structure
- ◆ Fire safety
- ◆ Not vulnerable to termites
- ◆ No additional preservative chemicals are required over & above the galvanising process to treat steel, unlike the treatment of timber
- ◆ Not vulnerable to any type of fungi or organism
- ◆ Less probability of foundation problems - 5 times lighter than wood which results in less movement
- ◆ Less probability of damage in an earthquake - lighter structure with stronger connections results in less seismic force
- ◆ Less probability of damage in high winds - stronger connections, rivetted and screwed versus nailed

### Benefits to the Builder

- ◆ Lighter than other framing materials - no lifting equipment required on site. One person can easily carry a 5-metre fabricated panel
- ◆ Easy material selection - no need to cull or sort
- ◆ Straight walls and Square corners
- ◆ Calls backs due to cracks are eliminated
- ◆ Windows and doors open and close as they should
- ◆ Less scrap and waste (2% for steel vs. 20% for timber)
- ◆ Environmental selling and green positioning



#### Termite Damage

Termites are known to destroy the wall and roofing timbers of a home within 3 months of construction.

As an example, termites cause more damage to homes in Australia than fire, floods and storms, combined.

Severe termite damage to a building is not uncommon. To compound the problem, your Home or Building Insurance Policy may NOT cover the repair costs of any timber damage caused by termites.

#### Toxic Mould

Moulds in Your Home can cause health problems and structural damage. The most common toxic mould is *Stachybotrys chartarum*, a slimy greenish-black mould that grows on moisture-laden materials. It does not grow on steel, nor does steel promote the growth of mould.

Mould can cause severe lung problems in infants and the elderly.

Steel does not contain moisture like wood. Even kiln dried wood still has a residual water content.

#### Fire Resistance

Steel Framing is non-combustible and will not fuel a fire.

Steel will not ignite & withstands higher temperatures.



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